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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,034	08/20/2003	In-Duk Song	041993-5238	5327
9629	7590	01/03/2006	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			KIM, RICHARD H	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/644,034	<b>Applicant(s)</b> SONG, IN-DUK	
	<b>Examiner</b> Richard H. Kim	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/31/05 has been entered.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujioka et al. (US 2002/0163615 A1) in view of Matsumoto et al. (US 2002/0131003 A1) and Kondo et al. (US 5,737,051).

Referring to claims 1, 3-6, 8, 10, 11 and 13, Fujioka et al. discloses a device and method comprising first and second substrates (102, 101) having an array region and a sealant region along a periphery of the array region (103), wherein the second substrate includes gate line (4) and data lines (8) arranged horizontally and vertically to define a pixel region (202), a thin film transistor (10) adjacent each crossing of the gate and data line; and a gate pad (6) and a data pad (2) at an end of the gate and data lines; a sealant in the sealant region attaching the first and

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second substrate (103), wherein the sealant (103) is located over the gate and data pads; a metallic black matrix formed in a sealant region that extends into the array region of the first substrate (105); a color filter on the metallic black matrix extending into the array region from the sealant region (106-107); and a liquid crystal layer between the first and second substrates (110). However the reference does not disclose an organic layer on the color filter, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant.

Matusmoto et al. discloses a flattening film on the color filter, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant (204). Kondo et al. discloses organic flattening film on the color filter (col. 10, lines 55-65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an organic film on the color filter, wherein the organic layer is formed in the array region and the sealant region and is in direct contact with the metallic black matrix and the sealant since the “organic film can be used with ease as the orientation film simultaneously because there is no need to provide an inclination angle. Hence, it becomes possible to simplify the process and to decrease the cost” (col. 10, lines 55-65).

Referring to claims 2 and 9, Fujioka et al. discloses that the black matrix is made of Cr (paragraph 103).

Referring to claims 7 and 12, Fujioka et al. discloses a common electrode and a pixel electrode in the pixel region (Fig. 14).

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3. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujioka et al. and Kondo et al. in view of Song et al. (US 6,894,753 B2).

Fujioka et al. and Kondo et al. disclose the device previously recited, but fails to disclose that the black matrix extends over at least one thin film transistor in the array region.

Song et al. discloses that the black matrix (700) extends over at least one thin film transistor in the array region.

It would have been obvious to one having ordinary skill in the art at the time the invention was made for the black matrix to extend over at least one TFT in the array region since one would be motivated to prevent light leakage between pixels.

#### ***Response to Arguments***

4. Applicant's arguments filed 8/31/05 have been fully considered but they are not persuasive.

5. In response to Applicant's argument that the references fail to disclose that the sealant is located over the gate and data pad, Examiner submits that in Fujioka et al. sealant (403) is located on the bottom substrate, connected the bottom and top substrate. Data pads (2) and gate pads (6) furthermore are disposed below the insulating layer (409), which is below the sealant (403). Therefore, even though the sealant is not directly over the gate and data pads, the sealant still exists *over* the gate and data pads. "Over" is defined as "In or at a position above or higher than." Therefore, the sealant is over the data pads and gate pads.

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard H. Kim whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard H Kim  
Examiner  
Art Unit 2871

RHK

  
ANDREW SCHECHTER  
PRIMARY EXAMINER